

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1	
2. AMENDMENT/MODIFICATION NO. 0004		3. EFFECTIVE DATE 23-Jun-2004		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO.(If applicable)	
6. ISSUED BY AFGHANISTAN ENGINEER DISTRICT US ARMY CORPS OF ENGINEERS KABUL APO AE 09356		CODE W917PM		7. ADMINISTERED BY (If other than item 6) See Item 6		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				X		9A. AMENDMENT OF SOLICITATION NO. W917PM-04-R-0004	
				X		9B. DATED (SEE ITEM 11) 19-May-2004	
						10A. MOD. OF CONTRACT/ORDER NO.	
						10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>2</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The solicitation referenced above is amended as stated on the following pages.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				TEL: _____ EMAIL: _____			
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 23-Jun-2004	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

CONTINUATION OF BLOCK 14:

Delete the Bid Schedule and replace with the following Bid schedule:

Rhabia E Balkhi Hospital

BID SCHEDULE

The Contractor shall provide a price for all items. The Government will evaluate the Contractor's entire proposal to determine which CLINs represent the best value to the Government.

Item No.	Description	Amount
1.	Base Bid for all items identified in Specification Section 1010.	\$ _____
Optional Bid Items:		
2.	Operating Room Floor refinishing (Section 1010, para. 5.1)	\$ _____
3.	Clean the terrazzo floor and wainscot (hallway and stairwell height of the wainscot is 1 meter high; 30 CM high in the ward rooms) in both floors, building B. (Section 1010, para. 5.2).	\$ _____
4.	Install lead shielding in X-ray room on first floor of building B. (Section 1010, para. 5.3)	\$ _____
5.	Replace ER door with sliding door. (Section 1010, para. 5.4)	\$ _____
6.	Install AC split packs in the two pharmaceutical storage rooms on the first floor of building B. (Section 1010, para. 5.5)	\$ _____
7.	Construct two partition walls, floor to ceiling, with a door to provide an extra room on the first floor of building A. (Section 1010, para. 5.6)	\$ _____
8.	Construct partitions in the area between the top of two doorways to the ceiling in the halls on both floors of Building A. (Section 1010, para. 5.7)	\$ _____

All bid items listed above are lump sum, "for the job" items.

Add the following new section to the end of the specifications:

SECTION 169995

SPECIAL CONSTRUCTION - X-RAY SHIELDING.

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 749	(1997) Lead and Lead Alloy Strip, Sheet, and Plate Products
ASTM C 36/C 36M	(1999) Gypsum Wallboard
ASTM C 37/C 37M	(1999) Gypsum Lath

NATIONAL COUNCIL ON RADIATION PROTECTION AND MEASUREMENTS (NCRP)

NCRP Rpt 35	(1970) Dental X-Ray Protection
NCRP Rpt 49	(1976) Structural Shielding Design and Evaluation for Medical Use of X-Rays and Gamma Rays of Energies up to 10 MeV
NCRP Rpt 102	(1989) Medical X-Ray, Electron Beam and Gamma-Ray Protection for Energies up to 50 MeV (Equipment Design, Performance and Use)

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)

WDMA I.S. 1	(1997) Wood Flush Doors
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1.2 SYSTEM DESCRIPTION

X-ray shielding shall be constructed such that it is not impaired by joints, openings for ducts, pipes, or other openings through shielding, or conduits, service boxes, and other items embedded in the shielding. The shielding shall appear to be continuous. Lead patches, lead sleeves, and/or mazes shall be installed as required to provide continuity of the shielding. Sleeves shall be not less than one inch in length. Thicknesses indicated for shielding are minimum acceptable thickness.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with Section 00835 SUBMITTAL PROCEDURES FOR DESIGN/BUILD PROJECT:

SD-02 Shop Drawings

Lead Sheet; G.

Drawings indicating thickness of lead at all locations; construction at floor, walls, ceiling, and columns; details of lead laps and lap securing methods; fastenings, profiles, details of items and accessories penetrating the shielding materials; and any special method of construction.

SD-03 Product Data

Lead Sheet; G.

Manufacturer's catalog cuts, descriptive data, and installation instructions.

1.4 DELIVERY, STORAGE AND HANDLING

Materials shall be delivered in the original containers bearing the name of the manufacturer and brand name. Shielding materials shall be stored off the ground under watertight cover. Damaged materials shall be removed from the premises.

1.5 WARRANTY

Lead sheet shielding materials shall be warranted against sagging and curling for 10 years.

PART 2 PRODUCTS

2.1 LEAD SHEET

Lead sheet shall conform to ASTM B 749, Grade C or equivalent DIN, BS, or EN standards, thickness as shown.

2.2 LEAD-LINED LATH

Lead-lined lath shall have a single thickness unpierced sheet of lead laminated to gypsum lath, conforming to ASTM C 37/C 37M, Type 1, Grade R, Class 1, Form a, Style 1 or equivalent DIN, BS, or EN standards, 9 mm (3/8 inch) thick, so that the lead extends 25 mm beyond lath on one long side and one short side.

2.3 LEAD-LINED GYPSUM WALLBOARD

Lead-lined gypsum wallboard shall be a single thickness of unpierced lead laminated to 16 mm (5/8 inch) thick gypsum board conforming to ASTM C 36/C 36M, or equivalent DIN, BS, or EN standards.

2.4 LEADED GLASS

Leaded glass shall be clear X-ray protective quality glass in single or multiple thicknesses. Leaded glass shall have lead equivalence required for the shielded wall, door, or partition in which the leaded glass is installed.

2.5 LEAD-HEADED NAILS

Lead-headed nails may be used to accomplish shielding not less than that provided by the barrier. The size, type and design shall be recommended by the manufacturer of material to be installed.

2.6 LEAD TABS OR CLIPS

Lead tabs or clips shall be unpierced sheet lead not less than the thickness of lead in the barrier. Prior to folding, the tabs shall be rectangular in shape and shall be the required size to provide an effective lead lap over an unleaded nail, screw, or tie wire penetration when folded.

2.7 LEAD-LINED WOOD DOORS

Lead-lined wood doors shall be good grade, hardwood veneer, solid core, in accordance with WDMA I.S. 1 or equivalent DIN, BS, or EN standards. Lead sheet shall extend to door edges and provide x-ray absorption equal to the partition in which the door is installed. Face veneer for lead-lined doors shall be to match adjacent doors. Doors shall have filler strips, crossbanding face veneers and hardwood edge strips glued under heavy pressure with contact adhesive.

2.7.1 Shielding

Cores shall be secured together with steel bolts, using washers under heads and nuts. Bolts shall be spaced not more than 38 mm from edges around door perimeter and not more than 200 mm on centers in both directions. Bolts shall be countersunk and have poured lead or lead dowels covering heads and nuts flush with face of core. Door thickness shall be manufacturer's standard for lead thickness used, unless shown otherwise.

2.7.2 Painting and Sealing Doors

Top and bottom edges of doors to be painted shall receive two factory coats of spar varnish before shipment to jobsite. Doors to be stained or have a natural finish shall receive two shop coats of water-resistant sealer before shipment to jobsite.

2.7.3 Door Hardware

Door hardware shall be designed to include mortises for floor hinge arms and top pivots with sheet lead and necessary lead plugs, sheet lead, stainless steel pans, bolts and screws shall be provided.

2.8 LEAD WINDOW FRAMES

Lead window frames for viewing windows mounted in lead-lined doors shall be constructed from lead extrusion welded in one piece or extruded aluminum alloy with concealed lead lining, splayed on four sides for wide-angle viewing. Frames shall form a minimum overlap of 9 mm at the perimeter of the lead glass or twice the thickness of the shielding, whichever is greater. Thickness of lead shall be the same as the lead in the barrier in which they occur. Frames can be either solid or telescoping type. Lead stops shall be provided for glass installation.

2.9 LEAD LIGHTPROOF LOUVERS

Lead lightproof louvers for doors shall be fabricated entirely of lead of not less than the thickness of lead in barrier in which they are installed. Louvers shall be one-unit construction designed with a maze-type blade to exclude the passage of light. Louvers shall allow 30 percent free area for air circulation. Louvers shall be factory-fitted, boxed separately, and shipped with door or assembled before shipment.

2.10 LEAD-LINED STEEL DOOR FRAMES

Steel frames shall be as specified in Section 08110 STEEL DOORS AND FRAMES. The inside of frames shall be lined with a single thickness of sheet lead. The thickness of the lead lining shall be the same as the lead lining of the system in which the frames are used. Linings shall be installed at the factory, and shall be continuous. Lining shall be formed to contour of frame. Lead shields shall be formed around areas prepared to receive hardware. Each lining shall be wide enough to provide and maintain an effective lead lap with the lead of the adjoining shielding units.

2.11 FILM CASSETTE TRANSFER CABINETS

Cassette transfer cabinet shall be double-wall steel cabinet divided into two compartments with doors of one cabinet plainly marked for exposed cassettes and doors of the other cabinet plainly marked for unexposed cassettes. Interlocking device shall prevent the doors on opposite ends of the cabinets from being opened at the same time. Sheet lead lining of cassette cabinet shall provide x-ray absorption equal to the X-ray absorption provided by partition in which the cabinet is installed. Cabinets shall have identification marking. Cabinet floor shall be corrugated rubber with chrome-plated door knobs.

2.12 OPERATORS PROTECTIVE SCREEN

Operators protective screen shall be constructed of studs, surfaced with lead-lined gypsum wallboard conforming to ASTM C 36/C 36M or equivalent DIN, BS, or EN standards, secured to studs with appropriate fasteners, with lead washer or tabs. Plywood-hinged screens and fixed screens after installation shall be finished in the same manner as specified for doors. At corners, or where screen abuts a wall or floor, screen panels shall be joined to provide an effective lap of lead. Lead or lead-lined viewing window shall be built-in.

2.13 DESIGNATING PLAQUES

2.13.1 Required Information

Designating plaques shall be furnished and installed as specified below in rooms and as indicated on the drawings. Locations where shielding thickness changes, or is not continuous, shall be indicated on the plaque. Plaque shall be of aluminum, plastic, bakelite, or other approved materials and shall be sized to contain the required information as specified below.

2.13.2 X-Ray and Examination Rooms

One sign shall be provided for x-ray rooms lettered as follows:

"THE PARTITIONS, THE DOORS, AND THE LEAD-LINED SHIELD OF THIS ROOM HAVE BEEN INSULATED WITH SHEET LEAD 6 mm THICK."

2.13.3 Rooms With Nonshielded Partitions

One sign shall be provided for each lead-shielded partition in a room for which all partitions are not shielded. A sign shall be located on lead-insulated partition and lettered as follows:

"THIS PARTITION HAS BEEN SHIELDED TO THE HEIGHT OF 2.4 METERS WITH SHEET LEAD 6 mm THICK."

PART 3 EXECUTION

3.1 INSTALLATION

Installation shall be performed in accordance with drawings and approved manufacturer's recommendations and NCRP Rpt 35, NCRP Rpt 49, and NCRP Rpt 102 or equivalent DIN, BS, or EN standards.

3.1.1 Workmanship

Sheet lead shall be installed free of waves, lumps, and wrinkles and with a minimum of joints. Joints in sheet lead shall provide protection equivalent to the protection provided by the adjacent sheet lead. Joints shall be finished smooth and neat.

3.1.2 Protection

Lead shields shall be used to maintain continuity of protection where unshielded built-in items penetrate lead linings. Where outlet boxes, junction boxes, ducts, conduits, and similar items prevent the use of shields, lead sleeves or lead lining shall be used. Fasteners shall not disrupt the continuity of shielding.

3.2 LEAD-LINED LATH

Lead-lined lath shall be applied over supports. The method of predrilling or drilling the pilot holes shall prevent deformation of the fastener and shall prevent distortion of the lath. Lead-lined lath shall be applied with long edges at right angles to supports and with lead linings placed next to supports.

3.2.1 Joints

End joints shall be placed over supports and shall be staggered in alternate courses. Wall joints shall not coincide with the ceiling joints. Each sheet shall overlap the lead extension on the adjacent sheet, providing an efficient lead lap. Lead-lined lath shall be applied with long edges parallel to supports and with lead linings placed next to supports. Blocking shall be provided at end joints. Sheet-lead strips, not less than the lath thickness and not less than 40 mm (1-1/2 inches) inches wide, shall be applied on blocking and on supports at joints. Lead strips shall be secured to blocking and supports at outer edges of strips. Lath shall be close fitted and uniformly secured to supports. Approximately 6 mm shall be allowed between horizontal joint to form key for plaster.

3.2.2 Frames and Corners

Lath shall extend into frames of openings effectively lapping with lead frames or frame linings. Unless otherwise approved, lath shall be arranged around openings such that neither horizontal nor vertical joints occur at corners of openings. External corners shall be reinforced with corner bead. Internal corners, except at unrestrained suspended ceilings, shall be reinforced as required and shall be installed with lead-headed nails or tie wires and lead tabs. At unrestrained ceilings, square-nosed casing beads shall be installed at the junction of walls and suspended ceilings.

3.2.3 Wood Supports

Lath shall be uniformly nailed to wood supports at approximately 175 mm on centers with lead-headed nails. Nail heads shall be flush with lath surface.

3.2.4 Metal Supports

Lath shall be uniformly secured to wood furring strips which are secured at right angles to the metal supports with bolts or screws. Lath shall be secured with lead-headed nails with the nail heads flush with lath surface. Lath shall be uniformly secured to metal supports with 25 mm (1 inch) screws or tie wire and lead tabs folded over the fasteners.

3.3 LEAD-LINED GYPSUM WALLBOARD

Lead-lined gypsum wallboard shall be applied over supports. Method of predrilling or drilling pilot holes shall not cause deformation of the fastener and shall not cause distortion of wallboard. Wallboard shall be applied vertically, with long edges parallel to supports, and with lead linings placed next to supports. Blocking shall be provided at end joints.

3.3.1 Joints

Sheet-lead strips not less than the lead thickness used for wallboard and not less than 38 mm wide shall be installed on blocking and supports at all joints.

3.3.2 Corner Joints

Corner joints shall consist of 45 x 45 mm (1-3/4 x 1-3/4 inch) lead angle.

3.3.3 Wood Supports

The sheet-lead strips shall be secured to blocking and supports at outer edges with wire nails. Edges of wallboard shall then be butt-jointed and fastened to supports with lead-headed nails at approximately 200 mm on centers at joints and 300 mm on center at intermediate supports with nail heads driven slightly below the surface of wallboard.

3.3.4 Metal Supports

Edges of gypsum wallboard at metal studs shall be fastened with 25 mm (1 inch) long lead-headed screws. Heads shall be covered with 13 mm (1/2 inch)

diameter lead disc cemented to wallboard and installed flush with surface of wallboard.

3.3.5 Finish Ply

Gypsum wallboard not scheduled to be plastered shall receive a finish ply of gypsum wallboard bonded to the first ply with laminating adhesive as recommended by the wallboard manufacturer. Nailing the finish ply will not be permitted. A shoring system shall be used to hold finish ply in place during adhesive drying period. Shoring shall be left in place at least 24 hours. Joint and corner treatment shall be designed to minimize maintenance to the wall finish.

3.4 LEAD DOOR THRESHOLDS

Thresholds shall be installed in accordance with approved detail drawings and shall be constructed as detailed on plans. Prior to installation, lead threshold surfaces in contact with concrete shall be painted with a coat of asphalt paint or latex material.

3.5 LEAD-LINED WOOD DOORS

Doors shall be fit, hung, and trimmed as required. Doors shall be installed with a clearance of 2 mm at sides and top and minimum adequate clearance at bottom. Lock edge shall be beveled 3 mm (1/8 inch), and hardware shall be adjusted as required. Warp or twist of lead-lined doors after doors have been hung and finished shall not exceed 6 mm in any face dimension of door including full diagonal. Cuts required for installation shall be sealed with a clear varnish or sealer.

3.5.1 Door Hardware

Bolts and screws which penetrate lead lining shall be recessed on the side of the door opposite hardware and shall be plugged with lead plugs to match face of door. Nuts for securing surface-applied hardware such as hinges, door closers and automatic door operators shall be countersunk and covered with lead-lined 1.59 mm thick (16 gauge) stainless steel pans. Stainless steel pans shall be secured with round-head screws with dull chromium-plated finish. Cutouts for lock sets and latch cases shall be patched with sheet lead. Lead lining of the lock set and lead lining of the door shall be lapped to provide x-ray absorption equal to the door.

3.5.2 View Windows

View windows shall be installed in doors with hardwood stops to match face veneer. Stops shall be glued to door on corridor side and shall be fastened with countersunk oval head screws or finishing nails.

3.5.3 Lead Louvers

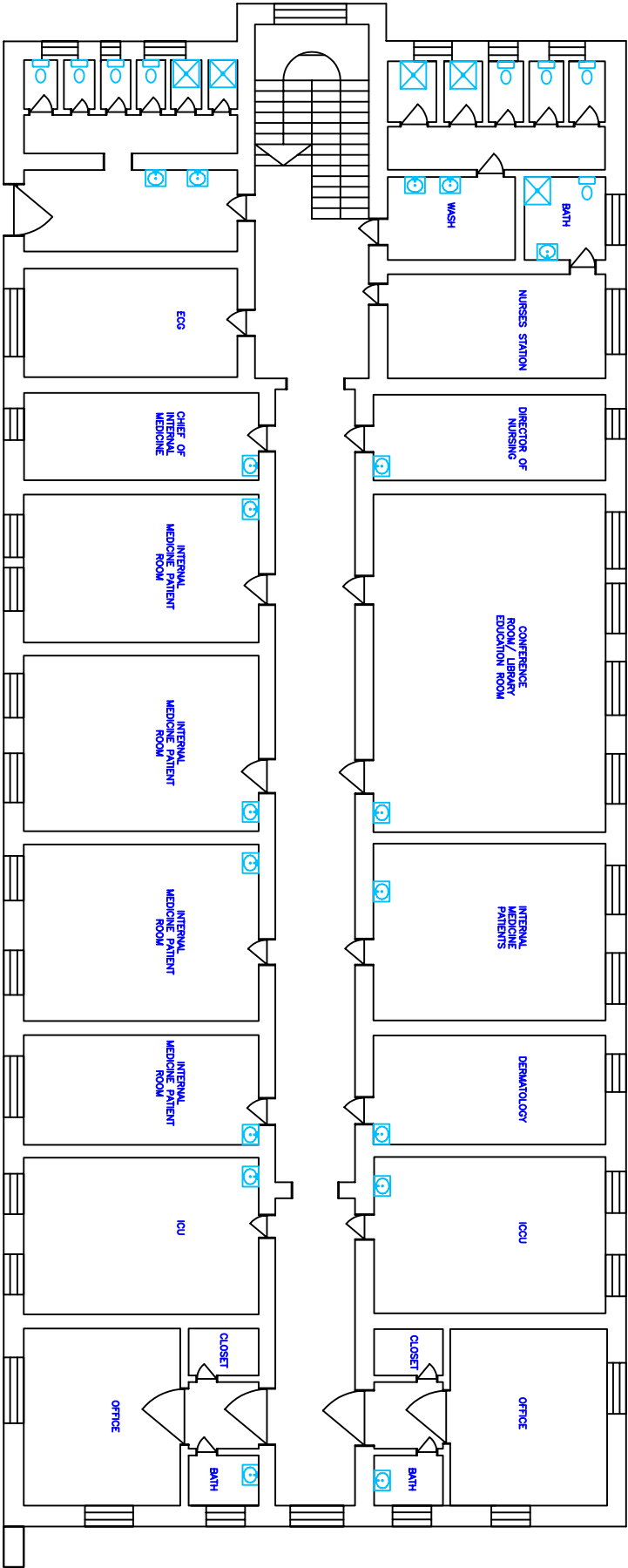
Lead louvers shall be installed in doors with cadmium-plated or chromium-plated screws. Fastenings shall not penetrate lead lining of the door.

3.6 TESTING AND CERTIFICATION

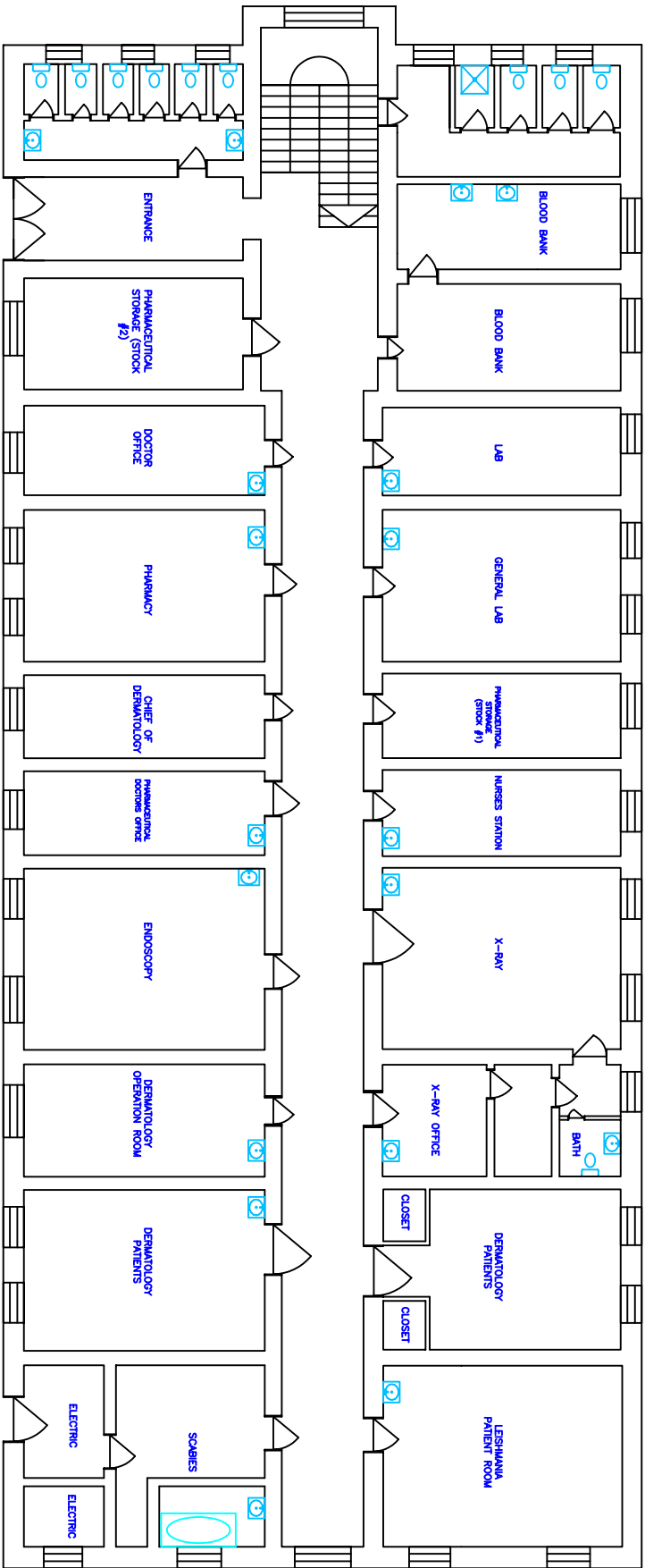
Before and after x-ray equipment has been installed and placed in operating condition, the x-ray installation shall be surveyed by a qualified expert as defined in NCRP Rpt 35, NCRP Rpt 49, and NCRP Rpt 102 or equivalent DIN, BS, or EN standards. Survey shall be performed in accordance with NCRP Rpt 35, NCRP Rpt 49, and NCRP Rpt 102 or equivalent DIN, BS, or EN standards. Four copies of surveyor's report shall be furnished to the Government. Any part of x-ray shielding work found to be defective shall be corrected or replaced, including all other work affected thereby.

-- End of Section --

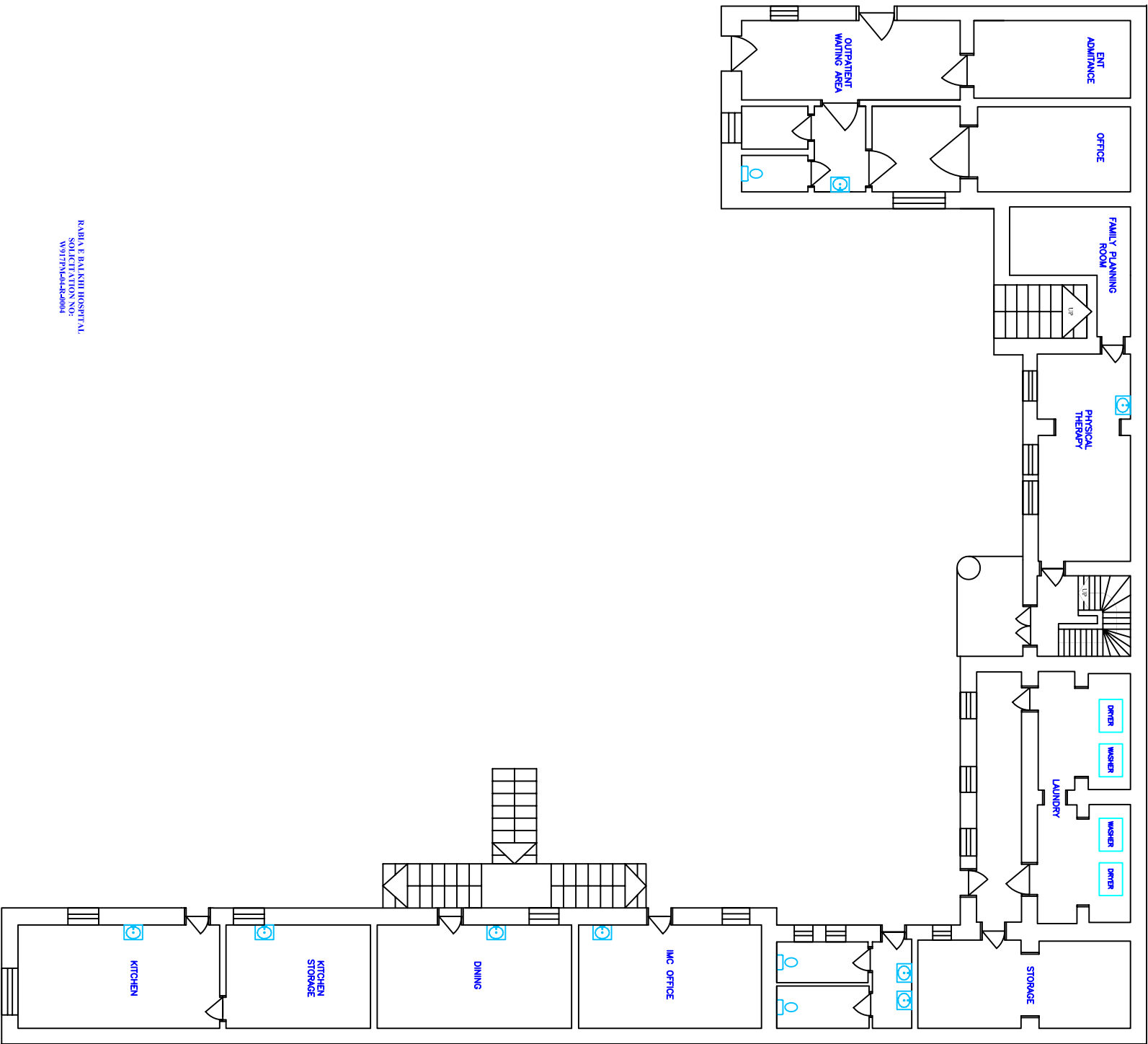
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